THE RECOVERY KERNEL

How to Navigate the Recovery Kernel

For People Recovering from Kratom

Kratom (Mitragyna speciosa) as powder, capsules, teas, shots, and extracts. A step-by-step route: what to read, in what order, and what outcome the Kernel projects if you follow it.

> **HARM REDUCTION RESOURCE — NOT MEDICAL ADVICE.** Kratom withdrawal is opioid-type, and **buprenorphine can manage it: ask for it by name.** Severe cases bring intense muscle aches, vomiting, diarrhea, insomnia, and anxiety that need medical management. Severe sedation, difficulty waking, or slowed breathing, especially with concentrated extracts, is an emergency: call 911 and give naloxone if you have it.
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> **Stop and seek emergency evaluation for jaundice (yellow skin or eyes), dark urine, severe abdominal pain, or extreme fatigue:** kratom is documented to cause liver injury. Palpitations, a racing heart, fainting, or dizziness need an ECG. Fever, diarrhea, and vomiting can be infection: kratom powder has been linked to salmonella outbreaks. Tell every clinician the specific substance, since kratom alkaloids are not reliably detected on standard opioid urine screens.
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> Crisis: call or text 988 · SAMHSA: 1-800-662-4357 · Never Use Alone: 1-800-484-3731

1. Before you start

This is a route through the Recovery Kernel for people recovering from kratom, and for the people supporting them. The Kernel's first point is that kratom is two substances depending on amount. At lower amounts it is stimulant-like: energy, alertness, social ease. At higher amounts, and especially in extracts, it is opioid-like: pain relief, sedation, warmth. The person using it for energy and the person using it for pain or opioid withdrawal are using different pharmacological entities, and which profile applies shapes the recovery architecture. Six rules set the order of everything that follows.

- **The opioid MAT framework applies.** Because the dependence runs through the mu-opioid receptor, buprenorphine, extended-release naltrexone, and clonidine are all options. Many physicians have never heard of kratom, so this guide gives you the words to ask.
- **Check your medications first.** CYP3A4 drives how strong kratom is. Inhibitors (grapefruit, fluconazole, clarithromycin, many HIV drugs, some antidepressants) can dramatically raise the effective dose, and inducers can precipitate withdrawal.
- **Get your liver and your heart checked.** Liver function testing is recommended for all significant kratom histories, and an ECG if you have palpitations or take other QT-prolonging drugs.
- **Have a pain plan or an energy plan before you stop.** Stopping without a plan for what kratom was doing fails.

- **Kratom is unstandardized.** Alkaloid content varies dramatically by batch, vendor, and storage, so a dose found with one product cannot be carried to another.
- **Do not wait for test results to start.** The genome refines the plan (Main Book, Quick-Start Step 3; Supp. Ch. 5, Step 1b).

How chapters are cited. "Main Book" is the Recovery Kernel Main Book (Second Edition, Centurian). "Compendium" is the Complete Protocol Compendium. "Supp. Ch. N" is chapter N of the Supplemental Book. The core chapter is Chapter 20 (How to Recover from Kratom). It leans on Chapter 18 (Opioids) for the endorphin framework and on the stimulant guides for the energy profile (Chapter 11, Methamphetamine and Amphetamine-Class Stimulants; Chapter 12, Cocaine). Section numbers (§) refer to sections inside those chapters. If you use a concentrated 7-OH product, see the companion 7-OH guide.

> **Legal status is changing fast, so check it.** The Kernel's regulatory section (Supp. Ch. 20 §8) predates recent federal action. In July 2026 the DEA filed notices of intent to temporarily place 7-OH above a set concentration, and three synthetic 7-OH derivatives, in Schedule I. Secondary reports say the three derivatives were scheduled effective August 26, 2026, and that the 7-OH threshold order had not been reported as published as of early September. Federal health agencies said the action is not aimed at natural leaf kratom below the threshold, but some states go further than the federal action, and the Kernel lists six states that already ban kratom (Alabama, Arkansas, Indiana, Rhode Island, Vermont, Wisconsin). Verify in the Federal Register and your state's law. If your supply could be cut off, talk to a MAT prescriber now, before you run out, so that a sudden loss of product does not push you into unplanned withdrawal or a street opioid.

> **A note on protocol numbers.** The opioid and kratom chapters cite Compendium protocols by number, and some numbers do not match the Compendium as printed. They call Protocol 05 "environmental redesign" (printed: Digital Detox), Protocol 03 "exercise" (printed: Sonic Architecture; exercise is Protocol 19), Protocol 12 "music" (printed: Hydration Science; music is Protocol 03), Protocol 16 "family and relationship repair" (printed: The Isolation Spiral), and Protocol 20 an identity protocol (printed: Mapping the Terrain). Chapter 20 also refers to a "C-37 principle" (the Compendium prints Protocol 37, Substance Masking Analysis) and sends a pain-plan reference to "Section 3" (the pain material is in Section 6). This guide cites each protocol by its printed title. If a number and a title disagree, follow the title.
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> For kratom, the same batch-to-batch variability applies: treat a fading effect as a stopping cue for that session, not a reason to add more.
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> Redosing is not the only version of this. Watching peers in a treatment setting negotiate a relapse, getting confident advice from someone untrained in your specific situation, or noticing a prescriber treat a prescribed substance more casually than an illicit one can all trigger the same pattern: a felt doubt read as “the plan must be wrong,” answered by abandoning it. See **The Commandeering Map**, a companion to this series, for the fuller pattern, including how it can differ by genetic profile and what helps when practice-based resistance alone is not enough.

2. The route at a glance

Steps 0 and 1 come first. Steps 2 to 4 can run at the same time. Steps 5 to 9 overlap and are the work of the first two years. Step 10 is everything after. "P" means Compendium Protocol; "C" means Centurian Paper.

Step	When	What you do	Turn to
0	Day 0	Triage: liver, heart, overdose signs, interactions, contamination, product type.	Supp. Ch. 20 §0 Main Book, Quick-Start Step 1 Compendium P01
1	Days 0–14	Medical assessment. Choose buprenorphine-assisted management or a supervised taper. Withdrawal care.	Supp. Ch. 20 §§3, 4.5, 7, 8 Supp. Ch. 18 §3; Ch. 35 §§7–8 Supp. Ch. 38
2	Weeks 1–4	Read the Main Book in order.	Main Book: Who This Book Is For, Quick-Start, Part One (Ch. 1–5) Supp. Ch. 2, 3
3	Weeks 1–4	Order 30× whole-genome sequencing. Add a clinical PGx panel and baseline labs.	Supp. Ch. 5 Step 1 Supp. Ch. 20 §2 Compendium P06
4	Weeks 2–6	Resolve your profile. Work out which of the three reasons you started.	Supp. Ch. 5 Steps 2–3, 6 Supp. Ch. 20 §§1.3, 2
5	Day 1 to Month 6	Build the biological foundation, including liver support and sleep.	Supp. Ch. 20 §4 Supp. Ch. 5 Phase One Compendium P17, P18, P09, P07
6	Weeks 2–12, then ongoing	All product out. Learn the dual craving. Log post-acute episodes.	Supp. Ch. 20 §5 Compendium P20, P21, P08, P33, P05
7	Months 1–24	Build the natural architecture for your profile, and the pain plan.	Supp. Ch. 20 §6 Supp. Ch. 18 §6; Ch. 11 §6 Compendium P19, P03, P29
8	In parallel	Pain management, ADHD evaluation, and the physician conversation.	Supp. Ch. 20 §§3, 7, 8 Compendium P14, P13 Supp. Ch. 38
9	Months 2–12+	Identity, inventory, amends, money, work, family.	Supp. Ch. 42, 43, 51 Compendium C-28, P23, P24, P22
10	Year 1 to Year 10	Steward: review, transplant, guide others.	Supp. Ch. 44, 6, 38 Compendium P02, P13 Supp. Ch. 5 Step 6

3. The route, step by step

Step 0 — Triage (Day 0, before everything)

Know the warning signs in the banner and act on them. Four risks are specific to kratom. Overdose is most likely with concentrated extracts, and if signs are worse than kratom alone should cause, assume possible fentanyl contamination, which is rare but documented, and give naloxone. Heart-rhythm risk: mitragynine has documented QTc effects, elevated by certain antidepressants, antipsychotics, antibiotics, and antifungals. Liver injury typically presents 1 to 8 weeks after starting or after a dose increase, often cholestatic or mixed, and some cases resolve with stopping while severe ones need hepatology. Contamination: salmonella, heavy metals such as lead and nickel, and batch-to-batch alkaloid variation.

Also ask which profile you are: opioid replacement (you used it to get off prescription opioids or heroin), chronic pain, or energy, focus, and function. The Kernel says the escalation pattern is the same as prescription opioids: an energy effect that needed more, then opioid-type dependence at the higher amount.

Turn to: Supp. Ch. 20 §0 (overdose; QTc; liver injury; contamination) and §1.4 (the escalation pattern). Main Book, Quick-Start Boot Sequence, Step 1. Compendium Protocol 01, Emergency Triage, for an acute crisis state.

Step 1 — Medical assessment and the withdrawal plan (Days 0–14)

Start with medical assessment: liver function (AST, ALT, GGT, bilirubin), an ECG, and a medication review for CYP3A4 interactions. Then choose the route with a prescriber. Buprenorphine has been used successfully for kratom withdrawal in multiple case reports and clinical series, and any DEA-registered provider can prescribe it. The Kernel warns of precipitated withdrawal if it is given before enough kratom has cleared, and describes low-dose (microdosing) induction as a way to avoid it. Extended treatment is associated with better outcomes than short courses. After complete cessation (typically 7 to 10 days abstinent), extended-release naltrexone blocks the receptor, and OPRM1 G carriers respond best. Clonidine handles the autonomic symptoms, and hydroxyzine is sometimes used for sleep and anxiety. The evidence for buprenorphine here is case reports and series, not large trials, and the Kernel says so.

If you and your physician choose to taper, the Kernel's general framework (not medical advice) is small reductions, about 10% of the total daily amount every one to two weeks, holding at each step until stable. It flags real limits: alkaloid content varies between products, so a taper by weight cannot be precise; switching vendors mid-taper adds uncontrolled variables; extracts are harder to taper than powder; and at very low daily amounts, stopping may be more manageable than further tapering. Supp. Ch. 5 gives a slightly different range (5 to 10% every one to two weeks), so agree the pace with your prescriber. The Kernel does not recommend a self-managed taper away from other opioids without medical guidance.

The withdrawal timeline: onset 12 to 24 hours after the last use; peak 24 to 72 hours (body aches, insomnia, anxiety, GI symptoms, depression, intense craving; generally less severe than heroin and more severe than typical prescription opioid withdrawal); days 3 to 7 with prominent depression; weeks 2 to 12 of episodic post-acute symptoms.

Turn to: Supp. Ch. 20 §3 (MAT for kratom; the taper; the physician conversation), §4.5 (the withdrawal timeline), §8 (the regulatory context and clinical documentation). Supp. Ch. 18 §3 and Supp. Ch. 35 §§7–8. Supp. Ch. 38 (questions to ask about MAT duration).

Step 2 — Read the Main Book (Weeks 1–4)

Read it in order once you are physically stable. If you are overwhelmed, the Quick-Start Boot Sequence is designed to be read on its own. Read "Who This Book Is — and Is Not — For" first: it names situations where the supplement protocols need medical modification, including active psychosis, pregnancy, and severe liver disease. That last one matters for kratom.

Read in this order: Who This Book Is For → Quick-Start Boot Sequence → Part One: Ch. 1 (Why Willpower Isn't Enough), Ch. 2 (MTHFR), Ch. 3 (COMT), Ch. 4 (CYP450, the drug-interaction chapter), Ch. 5 (When Systems Collide) → Ch. 7 (Harm Reduction), only if you are still using → Part Two, the case files (Chapter 6). Ch. 8 (Oxytocin Protocol) is experimental and specialist-only. Ch. 9 (Epigenetic Playground) belongs to Steps 7 and 10. Appendix A and Appendix B are reference.

Then add: Supp. Ch. 2 (Clarity · Restoration · Manning), which includes Case 14, the kratom case, and sets your expectations. Supp. Ch. 3 (The Addict Virgin Problem), which recalibrates timelines for a damaged system. Supp. Ch. 1 (Why They Left You There) is optional reading for the shame.

Step 3 — Get your DNA (Weeks 1–4)

The Kernel's recommended route is 30× whole-genome sequencing, which returns a VCF file, a one-time asset you keep. A consumer SNP array is an acceptable start. A clinical pharmacogenomic panel adds clinical-grade CYP2D6 and CYP3A4 calls. Homocysteine, B12, and RBC folate are functional markers you can recheck quarterly.

For kratom the Kernel calls **CYP3A4** the single most clinically important pharmacogenomic factor, because it converts mitragynine to the opioid-active 7-OH and also clears it. Next are **OPRM1**, **COMT** (Val/Val for the stimulant-like profile), **MTHFR**, and **CYP2D6**. Until results arrive: did kratom feel much stronger than expected at amounts others tolerated, which points to an interacting medication; did its strength change suddenly after starting a new drug; did low amounts feel stimulating and clarifying before the opioid effects developed; did you use it for opioid withdrawal or pain?

> **Confirm what you are ordering.** Supp. Ch. 5 specifies 30× whole-genome sequencing with VCF output. "WGBS" more commonly names whole-genome bisulfite sequencing, a DNA-methylation assay that is not built to call variants such as MTHFR C677T. Ask the lab for a standard variant file (VCF).

Turn to: Supp. Ch. 5, Step 1 (test options; free phenotype estimates). Supp. Ch. 20 §2 (genomic blueprint; phenotyping without testing). Compendium Protocol 06, Phenotype Assessment. Main Book Ch. 2 and Ch. 3 self-assessments.

Step 4 — Resolve your profile (Weeks 2–6)

Match yourself to the Kernel's three profiles and to your genes. Write your profile down and carry key results on a card.

If this is you...	What changes	Source
You used it to replace opioids	Two stages: stabilize the kratom dependency first, then address the underlying opioid history. The original driver (pain, trauma, PTSD) must be addressed for either to stay resolved.	Supp. Ch. 20 §1.3
You used it for chronic pain	Pain management is a concurrent clinical target. Stopping without a pain plan fails. Build non-opioid pain care, and consider buprenorphine, which treats pain and dependence together.	Supp. Ch. 20 §1.3, §6
You used it for energy, focus, function	The stimulant-recovery architecture (dopamine support, exercise, mastery) alongside the opioid framework. Ask about ADHD if the stimulant effect was the draw.	Supp. Ch. 20 §1.3
CYP3A4 inhibitors or inducers	Inhibitors dramatically raise the effective opioid-like dose. Inducers can precipitate withdrawal at a previously adequate amount. Check every medication.	Supp. Ch. 20 §§1.2, 2
OPRM1 A118G (G carrier)	Needed higher amounts. Stronger naltrexone response if extended-release naltrexone is used for maintenance.	Supp. Ch. 20 §§2, 3.2
COMT Val/Val (Warrior)	Drawn to the stimulant-like profile at lower amounts. Needs the stimulant natural architecture (exercise, competition, mastery) alongside the endorphin rebuild.	Supp. Ch. 20 §2
MTHFR variants	5-MTHF often produces meaningful early improvement in mood and energy. Avoid synthetic folic acid with any T variant.	Supp. Ch. 20 §4.1; Main Book Ch. 2
CYP2D6 poor or ultrarapid	A secondary kratom pathway. Also a prodrug-opioid safety marker: poor metabolizers get little from codeine or tramadol; ultrarapid metabolizers can convert codeine to morphine dangerously fast.	Supp. Ch. 20 §2; Ch. 35 §5

Turn to: Supp. Ch. 5, Steps 2, 3, and 6 (gene systems, combined profiles, profile template). Supp. Ch. 20 §§1.3 and 2. Main Book Ch. 5 and Appendix A.

Step 5 — Build the biological foundation (Day 1 to Month 6)

The foundation combines the opioid framework (endorphin-system and receptor recovery) with stimulant-framework dopamine support for the low-amount profile, plus kratom-specific liver protection. Layers: methylation support; endorphin support (DLPA, NAC, omega-3, vitamin D with K2); dopamine reconstruction if you were in the stimulant profile; liver support alongside the labs from Step 1, with alcohol avoided while enzymes are elevated; and sleep repair, since kratom withdrawal produces severe insomnia. The dose tables are in the chapter below. Run every addition past a pharmacist and an interaction checker (Drugs.com or Medscape). The peptide layer in Supp. Ch. 20 §4.7 is not a self-start step.

Turn to: Supp. Ch. 20 §4.1 (methylation), §4.2 (endorphin reconstruction), §4.3 (dopamine), §4.4 (liver support), §4.6 (sleep), §4.7 (peptides). Supp. Ch. 5, Phase One. Main Book Ch. 2, §2.4–2.5. Compendium Protocol 17 (The Nightly Restoration), Protocol 18 (Eating for Restoration), Protocol 09 (The Gut-Brain Axis), Protocol 07 (Neuroplasticity), and Centurian Paper C-32 (The Insomnia Architecture).

Step 6 — The dual craving (Weeks 2–12, then ongoing)

Kratom cravings have two faces. For the opioid profile, the craving is for pain relief, warmth, and the absence of withdrawal. For the stimulant profile, it is for energy, focus, and productivity. The Kernel names four triggers. Physical pain: the craving is accurate, so address the pain, not just the craving. Fatigue and morning demand: vigorous exercise, even brief, is the fastest natural alternative, and caffeine is managed, not a new dependency. The product being visible or accessible: remove all of it from home, car, and workspace, and do not keep any "just in case." And post-acute episodes that feel like withdrawal: name them, log them, and let the record show the pattern.

The Kernel's 5-minute interrupt: identify the craving type; take the endorphin and glutamate supports (DLPA and NAC); six cycles of 4-7-8 breathing; then a type-specific response (execute the pain plan for pain, or ten or more minutes of vigorous movement for energy); contact your support structure; and document.

Turn to: Supp. Ch. 20 §5 (the dual craving; triggers; the 5-minute interrupt). Compendium Protocol 20 (Mapping the Terrain), Protocol 21 (Reading the Collapse), Protocol 08 (Social Environment), Protocol 33 (The Boundary Architect), Protocol 05 (Digital Detox).

Step 7 — Build the natural architecture (Months 1–24)

The Kernel builds three architectures, and you may need more than one. For the opioid profile: vigorous sustained exercise (non-optional), genuine connection and safe touch, cold exposure, and service. For the stimulant profile: high-intensity exercise with a competitive element, mastery at the skill frontier, ADHD treatment if indicated, and managed caffeine. And for pain, a genuine plan: physical therapy, exercise-induced analgesia, buprenorphine for pain plus dependence, mindfulness-based pain reduction, acupuncture, TENS, heat and cold, and sleep optimization. Because receptors take months to recover, everything can hurt more and feel flatter at first.

Turn to: Supp. Ch. 20 §6 (two natural architectures, and pain management as the third). Supp. Ch. 18 §6 (endorphin architecture). Supp. Ch. 11 §6 (the stimulant natural architecture). Supp. Ch. 36 (Roots and Reversal). Supp. Ch. 3 (timeline recalibration). Compendium Protocol 19 (The Body in Motion), Protocol 03 (Sonic Architecture), Protocol 29 (The Peacetime Paradox).

Step 8 — Pain, ADHD, and the physician conversation (in parallel)

The pain track runs alongside recovery indefinitely, with a pain management physician and a physical therapist, and buprenorphine if pain and dependence coexist. If ADHD symptoms were what the lower amounts were managing, ask for an evaluation, because treating it removes the primary driver. Because kratom is not in standard drug panels and is not federally controlled, the medical record may not reflect your use, so disclose the specific substance to every treating clinician. The Kernel's suggested framing for the conversation: you have a kratom use disorder involving dependence on mitragynine and 7-hydroxymitragynine, which act as partial mu-opioid agonists; you are experiencing opioid-type withdrawal; and you are requesting evaluation for buprenorphine-assisted management. That framing asks the physician to engage with the clinical picture.

Turn to: Supp. Ch. 20 §3 (MAT), §7 (the protocol map; the pain management track), §8 (regulatory context; clinical documentation; the physician conversation). Supp. Ch. 18 §4.3 and §8. Supp. Ch. 38. Compendium Protocol 14 (Pain Management), Protocol 13 (The Pharma Trap).

Step 9 — Identity and rebuilding a life (Months 2–12+, revisited later)

The Kernel's frame for this group is compassion: many came to kratom with the best possible reasons, to get off opioids without a prescriber, to manage pain a system had undertreated, or to find energy for a demanding life. The preference was a signal, and the signal was accurate. Recovery is finding what the plant was providing (pain relief, energy, endorphin-mediated warmth) through means that do not themselves need management. Full Inventory is a structured 180-day plan, and Amends to Self puts the person who lived through it first.

Turn to: Supp. Ch. 42 (Full Inventory). Supp. Ch. 43 (Amends to Self). Centurian Paper C-28 (The Recast). Compendium Protocol 23 (Rebuilding the Ledger), Protocol 24 (Returning to Work), Protocol 22 (The Family Field), Protocol 16 (The Isolation Spiral), Protocol 25 (The Open Door). Supp. Ch. 51 (Family & Support Network Guide): give it to the people who love you.

Step 10 — The long game (Year 1 to Year 10)

The Kernel maps the first months of kratom recovery in detail, then borrows the opioid framework's 12 to 24 month arc. Navigation after that shifts from repair to stewardship. Section 4 shows how. Standing tools: Supp. Ch. 44 (The Transplant: redirect the devotion and daily structure the pattern required into a practice that grows). Supp. Ch. 6 (Stay Non-Addicted) and Compendium Protocol 02 (Behavioral Addictions, with its "Mask Change" caution on addiction transfer). Compendium Protocol 13 (The Pharma Trap). Supp. Ch. 38. Supp. Ch. 5, Step 6 (a weekly AI check-in profile, a reasoning tool and never a provider).

4. How navigation changes at Years 3, 5, and 10

Shading shows how much attention each track needs. Darkest is primary focus, then active, then maintenance. White cells with gray text are standing safeguards: low effort, never dropped. Numbers in brackets refer to the shifts listed below the table.

Track	Months 0–24 (foundation)	Year 3 (consolidate)	Year 5 (build out)	Year 10 (steward)
Safety and medical	Liver labs, ECG; MAT or taper plan	MAT and medications reviewed [1]	Annual liver and ECG check	Naloxone kept; tolerance rule [7]
Biology and genome	CYP3A4, OPRM1; medication check first	Retest labs; step stack to upkeep [2]	Prescriber card: CYP3A4, CYP2D6	Re-check with new meds and age
Product and access	All product out; none "just in case"	Cues fainter, not gone	Triggers shift: pain, deadlines [5]	Same plan, rehearsed
Pain or energy plan	Pain plan or energy plan first	Plan holds with no kratom rescue [3]	Annual pain plan review	New pain: age, surgery, dental [8]
Endorphin and dopamine	Exercise daily; touch, cold	Natural reward carries the load [4]	Exercise is a lifestyle	Periodized, still daily
Sleep and mood	Sleep rebuilt; PAWS waves	PAWS rare; sleep restored	Mood plan, clinician-led	Stress plan, sleep habits
Identity and Manning	Inventory; identity from month 2	Transplant; return to work	Manning: guide for others [6]	Mentor or run a group

The eight shifts

1. **Year 3, MAT and medications are reviewed.** If you are on buprenorphine, the Kernel says extended treatment is associated with better outcomes and sustained MAT may be warranted, so this is a review, not a default exit. Bring the duration and readiness questions in Supp. Ch. 38 to your prescriber, and use Compendium Protocol 13 for any other medication.
2. **Year 3, the stack moves from building to testing.** Retest labs, including liver function, and step down toward maintenance. The Trinity chapter says supplements are taken until stable, then tapered and resumed if the system destabilizes; Main Book Ch. 2 treats MTHFR support as maintenance, not cure. Step down to maintenance, not to zero.
3. **Year 3, the plan holds with no kratom rescue.** The Kernel says unmanaged pain is the most predictable path back, and that the pain track runs alongside recovery indefinitely (Supp. Ch. 20 §5, §7). By year 3 the pain or energy plan should carry the weight kratom used to.
4. **Year 3, natural reward carries the load.** The opioid framework places substantial receptor and endorphin recovery at 12 to 18 months (Supp. Ch. 18 §3.3). Exercise, connection, and mastery stop being a bridge and become ordinary life.

5. **Year 5, triggers shift from cues to context.** As cue craving fades, what remains is what the Kernel names: pain flares and, for the energy profile, deadlines and demanding mornings (Supp. Ch. 20 §5). Keep the plan for each in advance.
6. **Year 5, Manning.** This is the Trinity's third stage (Supp. Ch. 2). Supp. Ch. 18 §6 says many long-term opioid recovery successes name service as the central pillar, so guiding others peaks here.
7. **Year 10, naloxone and the tolerance rule.** The opioid framework says a break resets tolerance, and the Hoffman case file (23 years sober, dead at 46) is the Kernel's own argument that risk never reaches zero. Because the Kernel applies the opioid framework to kratom, keep naloxone at home and a written relapse plan.
8. **Year 10, new pain.** Age brings surgeries, dental work, and new pain, which the Kernel names as relapse triggers (Supp. Ch. 18 §5). Make the plan before the event, and tell every prescriber your genotype and that you have used kratom.

What is sourced and what is extrapolated. *Shifts 3, 4, and 6 rest directly on Kernel text. Shifts 1 and 2 apply Kernel rules at a timing chosen for this guide. Shifts 5, 7, and 8 are extrapolations, with 7 applying the Kernel's opioid rule to kratom. The Kernel's detailed kratom timeline ends at post-acute weeks 2 to 12, so years 3, 5, and 10 are projections.*

5. What outcome to expect

The short version

If you do the route above, with medical assessment first, a physician who understands the opioid mechanism, all product out, a pain or energy plan in place, and the natural architecture built, this is the outcome the Kernel projects:

- **You get through withdrawal safely.** It peaks at 24 to 72 hours and eases over days, with buprenorphine-assisted management as an option. Liver and heart checks are done early.
- **Post-acute episodes come and go over weeks 2 to 12,** and thin out afterward. Good days followed by bad days without a trigger are characteristic, not relapse.
- **The Kernel's sustainable end state:** a functioning endorphin system built from exercise, connection, and meaning, plus a genuine pain management plan. Having both removes the biological and the functional drivers of return.
- **By years 3 to 5 the work is maintenance and building. By year 10 you are a steward,** carrying a small set of standing safeguards.

The Kernel does not promise zero risk. It states that the outcome depends on whether the pain can be managed another way, that products vary batch to batch, and that many clinicians will not know the clinical picture unless you tell them.

Milestones, in order

Milestone	When	Expected outcome	Source	Basis
Medical checks done	Days 0–7	Liver enzymes, ECG, and medication interactions assessed. Route chosen with a prescriber.	Supp. Ch. 20 §7	Clinical fact
Acute withdrawal	Onset 12–24 h; peak 24–72 h	Body aches, insomnia, anxiety, GI symptoms, depression, intense craving. Generally less severe than heroin, more severe than typical prescription-opioid withdrawal.	Supp. Ch. 20 §4.5	Clinical timeline
Early recovery	Days 3–7	Improvement with variability. Depression often prominent. Exercise begins, even briefly.	Supp. Ch. 20 §4.5	Kernel projection
Post-acute episodes	Weeks 2–12	Episodic dysphoria, anxiety, sleep disruption, and craving. Track each episode. The pattern is normal and temporary.	Supp. Ch. 20 §4.5	Kernel projection
Liver recovery	Weeks to months	Kratom-related liver injury presents 1–8 weeks after starting or escalating. Some cases resolve with cessation; severe cases need hepatology.	Supp. Ch. 20 §0.3	Kernel projection
Receptor and endorphin recovery	Months 6–18+	Mu-opioid receptor density substantially recovered; natural comfort and bonding return. (Opioid framework.)	Supp. Ch. 18 §3.3	Kernel projection
Deep-root reversal	2–5+ years	Prefrontal recovery and epigenetic reversal continue. Some changes may be partial.	Supp. Ch. 36	Kernel projection
Steward phase	Years 3–10	Repair tracks at maintenance. Pain or energy plan holding. Purpose and service. Standing safeguards.	Section 4 of this guide	Extrapolated

The Kernel's own 12-month numbers for one kratom profile

Supplemental Chapter 2 gives projected outcomes at 12 months for an adherent protocol compared with standard treatment. Case 14 is a 37-year-old with fibromyalgia and chronic pain who tried opioids without adequate effect (CYP2D6 intermediate) and NSAIDs with GI intolerance, then found kratom and now uses it six to eight times a day to prevent withdrawal. The Kernel's summary: the outcome depends on whether the pain can be adequately managed through an identified alternative. If yes, cessation is achievable.

Case	Measure	Kernel protocol	Standard treatment
Case 14	Kratom dose reduction of 50% or more at 12 months with pain management in place	65%	20%
Case 14	Resolution of CYP3A4 drug interactions through kratom cessation	88%	40%

Case	Measure	Kernel protocol	Standard treatment
Case 14	Pain management maintained through non-kratom means	60%	15%
Case 14	Avoidance of escalation to unregulated opioids	78%	50%

How to read these numbers. *The Kernel describes them as archetype projections, "probability estimates" for an adherent, biologically confirmed 12-month protocol. They are not guarantees, and the Main Book states that it is not reporting a randomized controlled trial of the Kernel itself. The Kernel's own basis notes that standard kratom-dependence outcome data is limited, with harm-reduction approaches showing 20 to 30 percent significant reduction. The measure is dose reduction, not necessarily full abstinence.*

What changes the outcome

- **Stopping without a pain or energy plan.** The Kernel says this fails, and for chronic pain calls it clinically inappropriate.
- **An unrecognized CYP3A4 interaction.** Inhibitors can raise the effect dramatically, and inducers can precipitate withdrawal.
- **Ignoring liver or heart warning signs:** jaundice, dark urine, severe abdominal pain, palpitations, or fainting.
- **Switching vendors or products mid-taper,** or relying on extracts, which are harder to taper than powder.
- **Keeping product "just in case."** Environmental removal is more reliable than resistance.
- **Alcohol while liver enzymes are elevated.**
- **Not telling clinicians the specific substance.** Kratom is not in standard drug panels, so it may be missing from your record.
- **Escalating to unregulated opioids** when pain goes unaddressed or supply changes.
- **A lapse.** The Kernel treats it as information, not judgment (Protocol 21). Because the opioid framework applies, keep naloxone, contact your prescriber, and do not use alone.

How to read the evidence behind the outcomes

The Main Book marks claims with an Evidence Tier: Established, Probable, Emerging, Author/System Experience, and Controversial or Mixed. This guide's reading: the liver-injury and QTc warnings and the CYP3A4 interaction are documented in the Kernel and worth taking seriously. The evidence for buprenorphine in kratom withdrawal is case reports and series, though the wider opioid MAT evidence is strong. Kratom-dependence outcome data is limited, per the Kernel itself. The supplement stack, the low-dose naltrexone and peptide notes, the percentage projections, and the years 3 to 10 trajectory sit lower on that scale, so bring them to your clinician as questions, not as facts.

Take these to your clinician

- The specific product and form you used (powder, capsules, shots, extract), how much and how often, whether you used it for pain, opioid withdrawal, or energy, and any other substances.
- Every medication and supplement you take, so CYP3A4 interactions can be checked, plus your CYP3A4, OPRM1, and CYP2D6 results.
- A request for liver function tests (AST, ALT, GGT, bilirubin) and an ECG if you have palpitations or take other QT-prolonging drugs.
- A direct request to evaluate buprenorphine-assisted management, and a conversation about extended-release naltrexone after clearance.
- A pain management plan (and an ADHD evaluation if the stimulant-like effect was the draw), and naloxone for you and everyone in your home.